



APPLN. FILING DATE: March 12, 2004  
TITLE: Product Selection Expert System  
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APPLICATION SERIAL NO: 10/800,046  
SHEET 1 OF 21

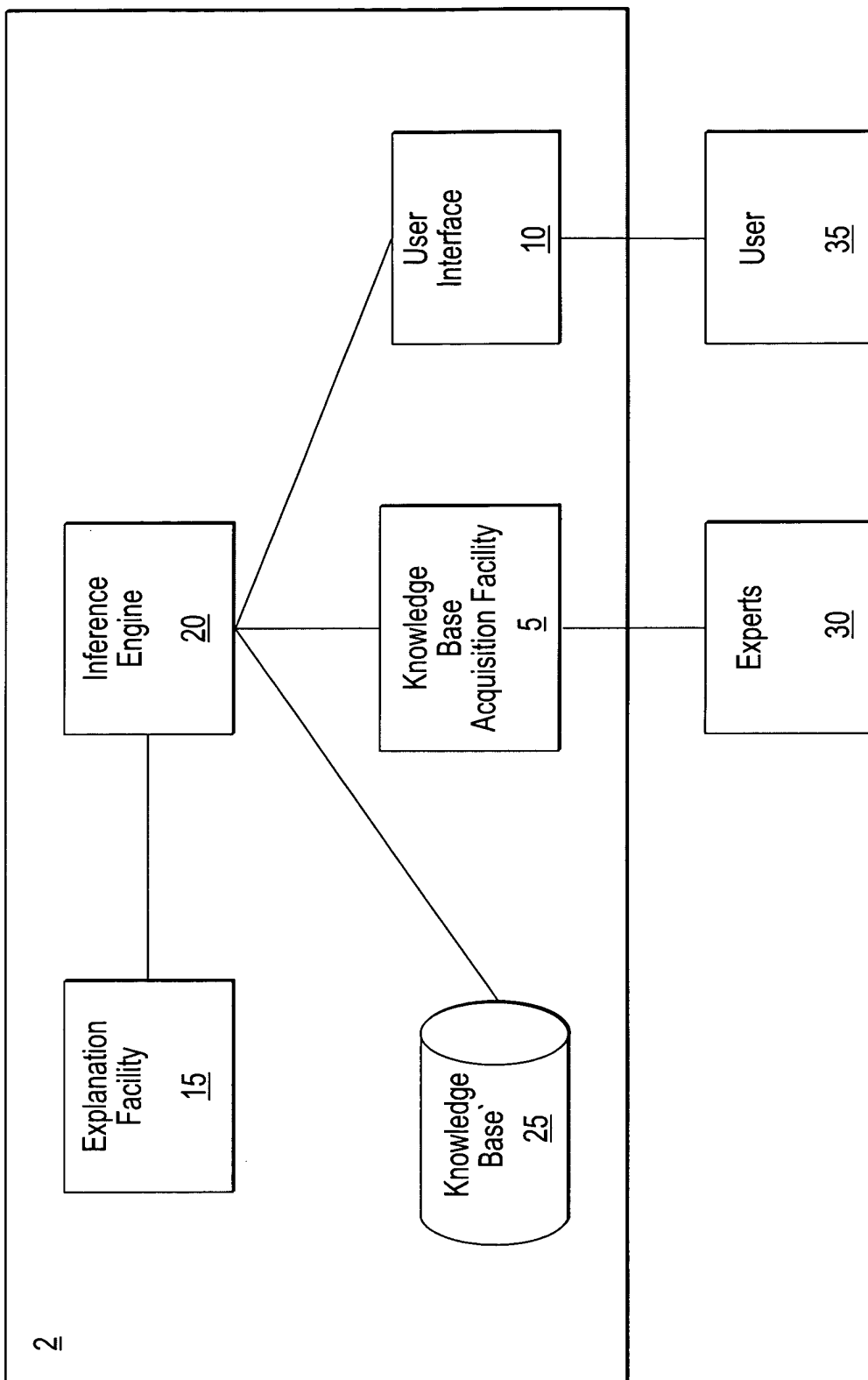


FIG. 1

Conceptual System Diagram

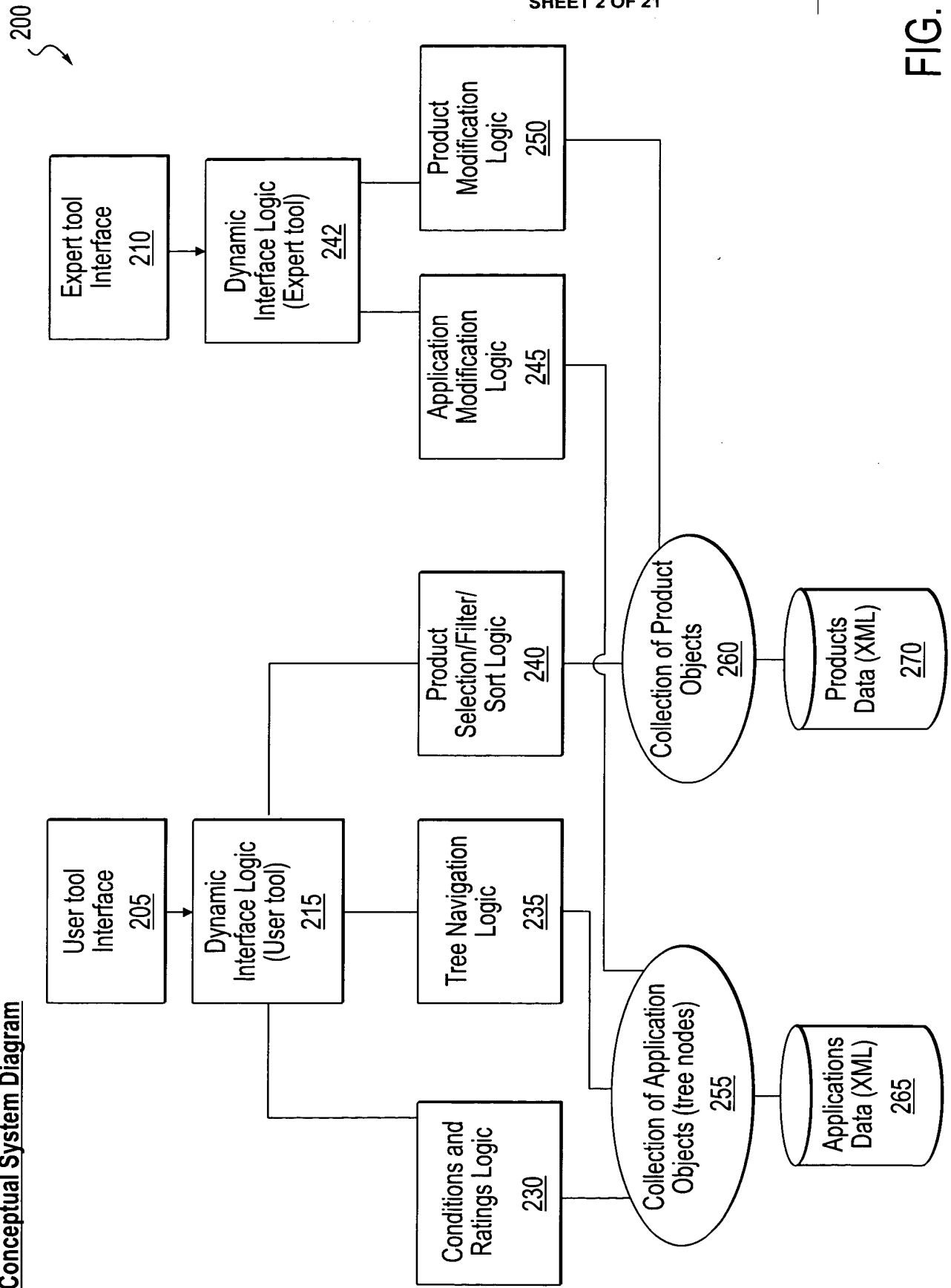


FIG. 2



```
<?xml version="1.0" encoding="utf-8" ?>
- <applications>
- <application id="0">
  <answer />
  <question>Select an Application</question>
  <parent />
- <condition cid="1">
  <prompt>Application Method</prompt>
  <choice>Spray</choice>
  <choice>Brush</choice>
  <choice>Gun</choice>
  </condition>
- <preference pid="3">
  <prompt>Water washout resistance</prompt>
  </preference>
- <preference pid="4">
  <prompt>Continuous heavy loads</prompt>
  </preference>
</application>
- <application id="1">
  <answer>Industrial</answer>
  <question>Which type of industrial?</question>
  <parent>0</parent>
</application>
- <application id="2">
  <answer>Automotive</answer>
  <question>What type of automotive?</question>
  <parent>0</parent>
</application>
+ <application id="4">
- <application id="5">
  <answer>Wheel bearings</answer>
  <question/>
  <parent>2</parent>
- <condition cid="11">
  <prompt>Operating Conditions</prompt>
  <choice>High temperature</choice>
  <choice>High water exposure</choice>
  <choice>Normal Duty</choice>
  </condition>
</application>
- <application id="3">
  <answer>Farm Machinery</answer>
  <question>What type of farm machinery?</question>
  <parent>0</parent>
</application>
</applications>
```

400

FIG. 4

```
<?xml version="1.0" encoding="utf-8" ?>
- <greases>
  - <grease>
    <name>Grease Product A</name>
    - <applications>
      <application>4</application>
      <application>5</application>
    </applications>
    - <preferences>
      <preference pid="0">4</preference>
      <preference pid="1">9</preference>
    </preferences>
    - <conditions>
      - <condition cid="0">
        - <Choices>
          <choices>Brush</choice>
          <choice>Gun</choice>
        </Choices>
      </condition>
      - <condition cid="1">
        - <Choices>
          <choice>High Temperature</choice>
        </Choices>
      </condition>
    </conditions>
  </grease>
- <grease>
  <name>Grease Product B</name>
  - <applications>
    <application>5</application>
  </applications>
  - <preferences>
    <preference pid="0">2</preference>
    <preference pid="1">7</preference>
  </preferences>
  - <conditions>
    - <condition cid="0">
      - <Choices>
        <choice>Spray</choice>
      </Choices>
    </condition>
    - <condition cid="1">
      - <Choices>
        <choice>Normal Duty</choice>
      </Choices>
    </condition>
  </conditions>
</grease>
</greases>
```

500



FIG. 5

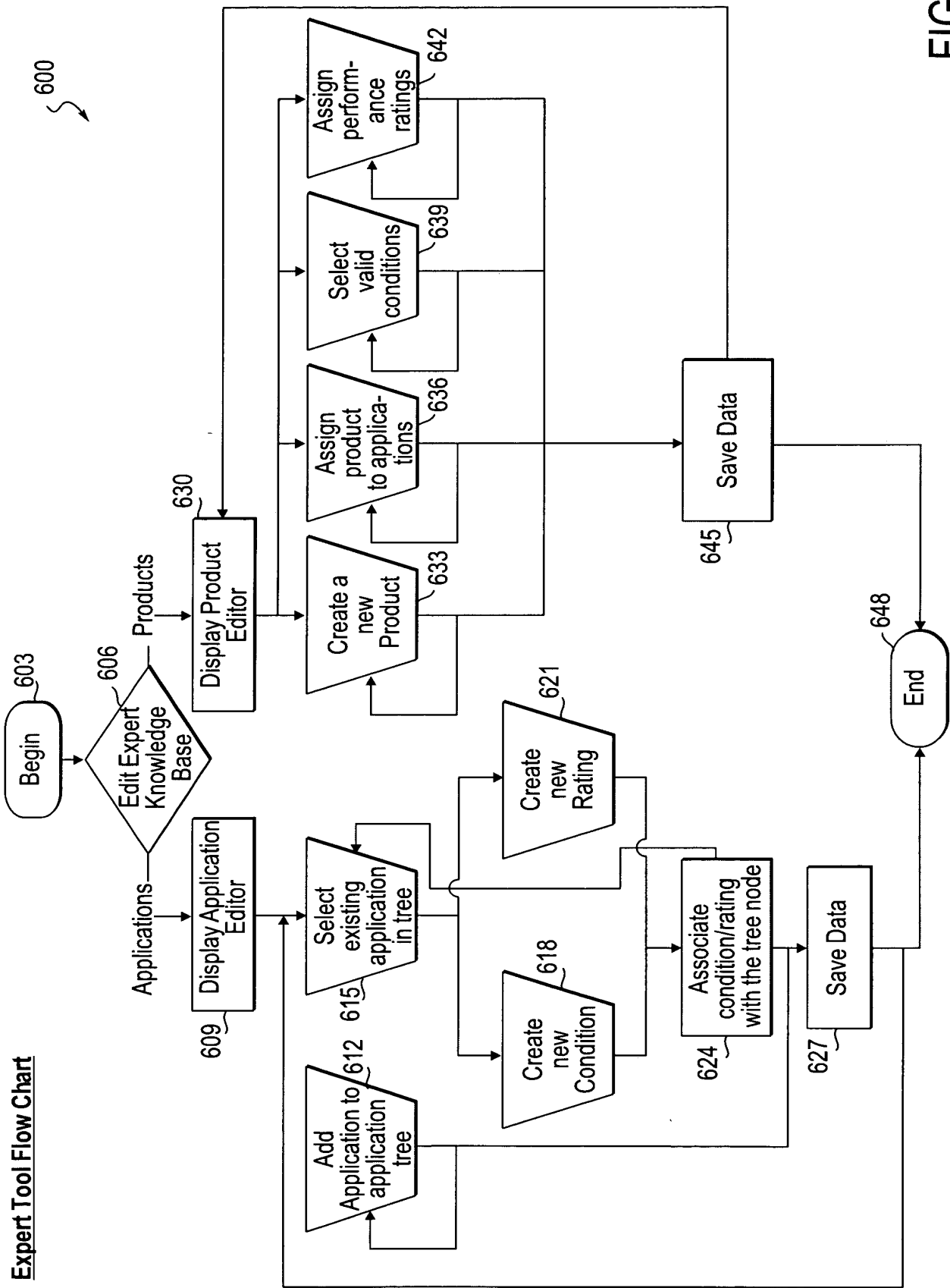
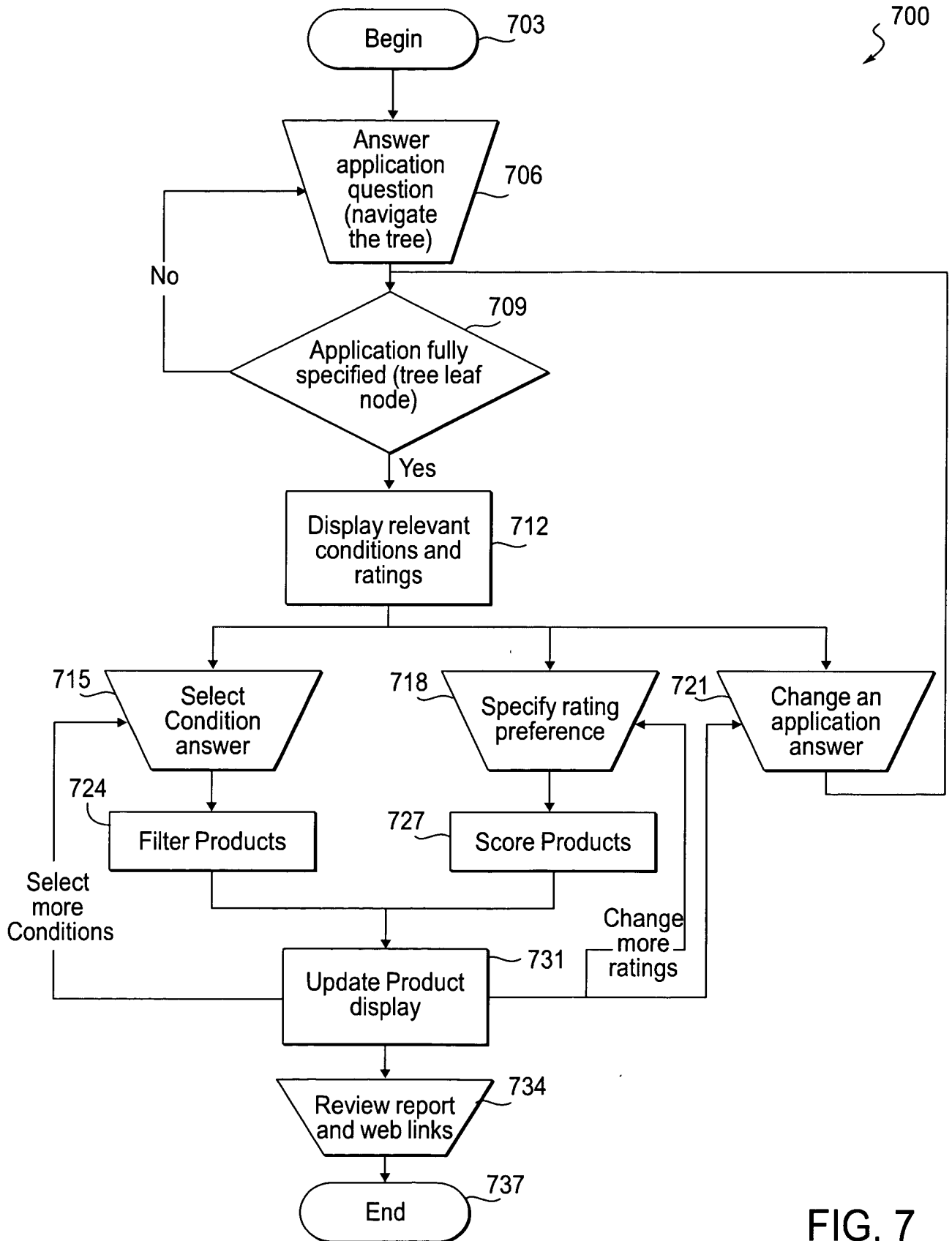


FIG. 6

User Tool Flow Chart



Expert System

**Step 1** Anew product is added and its appropriate application is checked off in a simple check off box.

801

Match product to Application    Application Details    Condition    Ratings

**Add Grease**

New Product

OK    Cancel

bearing 860

Food

810

820

- ☐ Dura-Lith Grease EP NIGI3
- ☐ FM Greases EP Aerosol
- ☐ FM Greases
- ☐ FM Greases
- ☐ Mil Lubricant
- ☐ Moly Grease
- ☐ Moly Grease
- ☐ Moly MAX Gr
- ☐ Moly MAX Grease EP NLGI 2
- ☐ Open Gear Grease 810
- ☐ Open Gear Grease-Aerosol
- ☒ Open Gear Grease NC
- ☐ Open Gear Lubricant 250 NC-HT
- ☐ Open Gear Lubricants, 100 NC
- ☐ Open Gear Lubricants, 250 NC
- ☐ Open Gear Lubricants, 800 NC
- ☐ RPM Arctic Grease
- ☐ RPM Automotive LC Grease EP NLGI
- ☐ RPM Heavy Duty LC Grease EP NLGI
- ☐ RPM Heavy Duty LC Grease EP NLGI
- ☐ RPM Heavy Duty LC Grease EP NLGI
- ☐ Rykon Premium Grease EP
- ☐ Rykon Premium Grease No. 1364
- ☐ Rykon Premium Grease No. 1426
- ☐ Rykotac Grease Ep
- ☐ Sil-X Grease NLGI 1
- ☐ Sil-X Grease SF
- ☐ SRI Grease NLGI 2
- ☐ SRI Grease OEM
- ☐ Super Pernalube Grease
- ☐ Thread Sealing Compound
- ☐ Tool Joint Compound
- ☐ Ulti-Plex Grease EP NLGI 0
- ☐ Ulti-Plex Grease EP NLGI 1
- ☐ Ulti-Plex Grease EP NLGI 2
- ☐ Ulti-Plex HV Synthetic Grease EP
- ☐ Ulti-Plex Synthetic Grease EP
- ☐ Ultra-Duty Grease EP NLGI 0
- ☐ Ultra-Duty Grease EP NLGI 1
- ☐ Ultra-Duty Grease EP NLGI 2

- ☐ -Bearings
  - ☐ Ball, roller, or needle
    - ☐ Spherical roller bearing
    - ☐ Conveyor belt or roll bearing
    - ☐ Need's bearing
    - ☐ Roller bearing
    - ☐ Ball bearing
  - ☐ Plain {Journal} bearing
    - ☐ Conventional grease 820
- ☐ Slides, guides, or ways 820
- ☐ Gears
  - ☒ Open
  - ☐ Enclosed
  - ☐ Casing and Tubing pipe thread
  - ☐ Flexible Couplings
    - ☐ Gear type
    - ☐ Chain type
    - ☐ Steel Grid
  - ☐ Screws
  - ☐ Cama and cam followers
  - ☐ Oil Collars, Drill Sterns
- ☐ Heavy-duty on-highway trucking
  - ☐ Truck wheel bearings
  - ☐ Water pump
  - ☐ Truck chassis (including ball and U-joints)
  - ☐ Kingpin or shackle
  - ☐ Fifth wheel
- ☐ Passenger Car/Light Truck
  - ☐ Alteration/Generator rebuilders
  - ☐ Wheel bearings
  - ☐ Water pumps - rebuilders
  - ☐ Chassis (including ball & u-joints)

FIG. 8



Step 2- User definable conditions which is acceptable for this product or service is defined by highlighting appropriate single conditions or combinations of conditions.

801

Match product to Application		Application Details	
		Application	Condition
<input type="checkbox"/> Dura-Lih Grease EP NIGI3		Heavy loads, braking (e.g. disc brakes, heavy loads)	
<input type="checkbox"/> FM Greases EP-Aerosol		Wet, off- road (e.g. boat trailers, other wet conditions)	
<input type="checkbox"/> FM Greases EP NLGI 0		Normal duty	
<input type="checkbox"/> FM Greases EP NLGI 1			
<input type="checkbox"/> FM Greases EP NLGI 2			
<input type="checkbox"/> Mil Lubricant Light	810	High Temperature (e.g. disc brakes, trailer towing)	
<input type="checkbox"/> Moly Grease EP NLGI 1		High water exposure (e.g. boat trailer)	
<input type="checkbox"/> Moly Grease EP NLGI 2		Normal duty	
<input type="checkbox"/> Open Gear Grease			
<input type="checkbox"/> Open Gear Grease-Aerosol			
<input type="checkbox"/> Open Gear Grease NC		3% required	
<input type="checkbox"/> Open Gear Lubricant 250 NC-HT		5% required	
<input type="checkbox"/> Open Gear Lubricants, 100 NC		No	
<input type="checkbox"/> Open Gear Lubricants, 250 NC			
<input type="checkbox"/> Open Gear Lubricants, 800 NC			
<input type="checkbox"/> RPM Arctic Grease		-1 to 40F	
<input type="checkbox"/> RPM Automotive LC Grease EP NLGI		-20% to 0F	
<input type="checkbox"/> RPM Heavy Duty LC Grease EP NLG		-40 to -21F	
<input type="checkbox"/> RPM Heavy Duty LC Grease EP NLG		Below - 40F	
<input type="checkbox"/> Rykon Premium Grease EP			
<input type="checkbox"/> Rykon Premium Grease No. 1364		above 350F	
<input type="checkbox"/> Rykon Premium Grease No. 1426		301 to 350F	
<input type="checkbox"/> Rykotac Grease Ep		261 to 300F	
<input type="checkbox"/> Sil-X Grease NLGI 1		213 to 260F	
<input type="checkbox"/> Sil-X Grease SF		175 to 212F	
<input type="checkbox"/> SRI Grease NLGI 2			
<input type="checkbox"/> SRI Grease OEM			
<input type="checkbox"/> Super Pemalube Grease			
<input type="checkbox"/> Thread Sealing Compound		Spray Gun	
<input type="checkbox"/> Tool Joint Compound		Manual;	
<input type="checkbox"/> Ulti-Plex Grease EP NLGI 0		Single Point auto-lubricator	
<input type="checkbox"/> Ulti-Plex Grease EP NLGI 1		Central system	
<input type="checkbox"/> Ulti-Plex Grease EP NLGI 2		Grease gun	
<input type="checkbox"/> Ulti-Plex HV Synthetic Grease EP		Aerosol spray	
<input type="checkbox"/> Ulti-Plex Synthetic Grease EP		Other, like container pumps	830
<input type="checkbox"/> Ultra-Duty Grease EP NLGI 0			
<input type="checkbox"/> Ultra-Duty Grease EP NLGI 1			
<input type="checkbox"/> Ultra-Duty Grease EP NLGI 2			

FIG. 9

Step 3- Expert assessments of ratings for each of the products or service in terms of importance to the end user are assigned by experts

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Match product to Application		Application Details	
		Application	Condition
<input type="checkbox"/> Dura-Lih Grease EP NIGI3		<input type="text" value="0"/>	Good Chassis Grease?
<input type="checkbox"/> FM Greases EP-Aerosol		<input type="text" value="5"/>	Industrial water rust resistance?
<input type="checkbox"/> FM Greases EP NLGI 0		<input type="text" value="0"/>	Salt water rust resistance?
<input type="checkbox"/> FM Greases EP NLGI 1		<input type="text" value="6"/>	Water washout resistance?
<input type="checkbox"/> FM Greases EP NLGI 2		<input type="text" value="6"/>	Continuous heavy loads?
<input type="checkbox"/> Mil Lubricant Light	810	<input type="text" value="6"/>	Shock load protection?
<input type="checkbox"/> Moly Grease EP NLGI 1		<input type="text" value="0"/>	Low Noise OEM motor brgs
<input type="checkbox"/> Moly Grease EP NLGI 2			
<input type="checkbox"/> Open Gear Grease			
<input type="checkbox"/> Open Gear Grease-Aerosol			
<input type="checkbox"/> Open Gear Grease NC			
<input type="checkbox"/> Open Gear Lubricant 250 NC-HT			
<input type="checkbox"/> Open Gear Lubricants, 100 NC			
<input type="checkbox"/> Open Gear Lubricants, 250 NC			
<input type="checkbox"/> Open Gear Lubricants, 800 NC			
<input type="checkbox"/> RPM Arctic Grease			
<input type="checkbox"/> RPM Automotive LC Grease EP NLGI			
<input type="checkbox"/> RPM Heavy Duty LC Grease EP NLGI			
<input type="checkbox"/> RPM Heavy Duty LC Grease EP NLGI			
<input type="checkbox"/> RPM Heavy Duty LC Grease EP NLGI			
<input type="checkbox"/> Rykon Premium Grease EP			840
<input type="checkbox"/> Rykon Premium Grease No. 1364			
<input type="checkbox"/> Rykon Premium Grease No. 1426			
<input type="checkbox"/> Rykotac Grease Ep			
<input type="checkbox"/> Sil-X Grease NLGI 1			
<input type="checkbox"/> Sil-X Grease SF			
<input type="checkbox"/> SRI Grease NLGI 2			
<input type="checkbox"/> SRI Grease OEM			
<input type="checkbox"/> Super Pemalube Grease			
<input type="checkbox"/> Thread Sealing Compound			
<input type="checkbox"/> Tool Joint Compound			
<input type="checkbox"/> Ulti-Plex Grease EP NLGI 0			
<input type="checkbox"/> Ulti-Plex Grease EP NLGI 1			
<input type="checkbox"/> Ulti-Plex Grease EP NLGI 2			
<input type="checkbox"/> Ulti-Plex HV Synthetic Grease EP			
<input type="checkbox"/> Ulti-Plex Synthetic Grease EP			
<input type="checkbox"/> Ultra-Duty Grease EP NLGI 0			
<input type="checkbox"/> Ultra-Duty Grease EP NLGI 1			
<input type="checkbox"/> Ultra-Duty Grease EP NLGI 2			
	810		

FIG. 10

Programming steps - Adding categories or subcategories is made under each category item, this lists follow up questions for the end user.

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File Edit Help

Match product to Application	Application Details
<ul style="list-style-type: none"><li>Cotton picker spindles</li><li><input type="checkbox"/> Railroad<ul style="list-style-type: none"><li>Rail or flange</li><li>Journal (axle) roller bearing</li><li>Traction motor gear</li></ul></li><li><input type="checkbox"/> Industrial, Marine, or Food <span style="float: right;">870</span><ul style="list-style-type: none"><li>Chains</li><li>Wire rope</li><li><input type="checkbox"/> Bearings<ul style="list-style-type: none"><li><input type="checkbox"/> Ball, roller, or needle:<ul style="list-style-type: none"><li>Spherical roller bearing</li><li>Conveyor roller bearing</li><li>Need's bearing</li><li>Roller bearing</li><li>Ball bearing</li></ul></li><li><input type="checkbox"/> Plain {Journal} bearing<ul style="list-style-type: none"><li>Conventional grease</li></ul></li></ul></li><li>Slides, guides, or ways</li><li><input type="checkbox"/> Gears<ul style="list-style-type: none"><li>Open</li><li>Enclosed</li></ul></li><li>Casing and Tubing pipe thread</li><li><input type="checkbox"/> Flexible Couplings<ul style="list-style-type: none"><li>Gear type</li><li>Chain type</li><li>Steel Grid</li></ul></li><li>Screws</li><li>Cams and cam followers</li><li>Drill Collars, Drill Sterns</li></ul></li><li><input type="checkbox"/> Heavy-duty on-highway trucking<ul style="list-style-type: none"><li>Truck wheel bearings</li><li>Water pump</li><li>Truck chassis (including ball and U-joints)</li><li>Kingpin or shackle</li><li>Fifth wheel</li></ul></li><li><input type="checkbox"/> Passenger Car/Light Truck<ul style="list-style-type: none"><li>Alteration/Generator rebuilders</li><li>Wheel bearings</li><li>Water pumps - rebuilders</li><li>Chassis (including ball &amp; u-joints)</li><li>Constant Velocity Joints</li></ul></li><li>General Purpose</li></ul>	<div>Answer to previous question <div>Ball, roller, or needle</div></div> <div>Next question to ask <div>Which bearing type?</div></div> <div>Rating questions: <div></div></div> <div>Condition questions: <div>Approx. bearing diameter Ball, roller, needle rpm</div></div> <div>Condition choices: <div>850</div></div>

FIG. 11

**Step 1: APPLICATION**

Select Application

- Mobile Farm Machinery
- Railroad
- Industrial, Marine, or Food
- Heavy-duty on highway
- Passenger Car/Light Truck
- General Purpose
- Heavy Duty Off Road

**Step 2: CONDITIONS**

scrollbar to view all conditions

**Step 3: Importance**

move cursor on scale of 1-10

Good Chassis Grease? \_\_\_\_\_

Industrial water rust resistance? \_\_\_\_\_

Salt water rust resistance? \_\_\_\_\_

Water washout resistance? \_\_\_\_\_

Continuous heavy loads? \_\_\_\_\_

Shock load protection? \_\_\_\_\_

Low Noise- OEM El.motor brgs \_\_\_\_\_

**SELECTED GREASES**

**Step5:** Highlight grease, click web links above, use Grease name in CBEST search

[Search the Web](#)

[Product Data Sheet](#)

Selected Greases

110

**Step 1: APPLICATION**

Select Application

Mobile Farm Machinery  
Railroad  
Industrial, Marine, or Food  
Heavy-duty on highway  
Passenger Car/Light Truck  
General Purpose  
Heavy Duty Off Road

112

Which category of application

Chains  
Wire rope  
Bearings  
Slides, guides, or ways  
Gears  
Castings, and Tubing pipe  
Flexible Couplings

114

**Step 2: CONDITIONS**

scrollbar to view all conditions

**Step 3: Importance**

move cursor on scale of 1-10

Good Chassis Grease?

Industrial water rust resistance?

Salt water rust resistance?

Water washout resistance?

Continuous heavy loads?

Shock load protection?

Low Noise- OEM El. motor brgs

**SELECTED GREASES**

**Step5:** Highlight grease, click web links above, use Grease name in CBEST search

[Search the Web](#)

[Product Data Sheet](#)

Selected Greases

101

150

Figure 1: Screenshot of the CBEST search interface. The interface is divided into three main sections: Step 1: APPLICATION, Step 2: CONDITIONS, and Step 3: Importance.

**Step 1: APPLICATION** (110)

Select Application (111)

- Mobile Farm Machinery
- Railroad
- Industrial, Marine, or Food
- Heavy-duty on highway
- Passenger Car/Light Truck
- General Purpose
- Heavy Duty Off Road

Which category of application (112)

- Chains
- Wire rope
- Bearings
- Slides, guides, or ways
- Gears
- Castings, and Tubing pipe
- Flexible Couplings

**Step 2: CONDITIONS** (120)

scrollbar to view all conditions

**Step 3: Importance** (130)

move cursor on scale of 1-10

Good Chassis Grease? \_\_\_\_\_

Industrial water rust resistance? \_\_\_\_\_

Salt water rust resistance? \_\_\_\_\_

Water washout resistance? \_\_\_\_\_

Continuous heavy loads? \_\_\_\_\_

Shock load protection? \_\_\_\_\_

Low Noise- OEM El. motor brgs \_\_\_\_\_

**SELECTED GREASES**

Step 5: Highlight grease, click web links above, use Grease name in CBEST search

Selected Greases (150)

Search the Web

Product Data Sheet

<input type="checkbox"/> <b>Step 1: APPLICATION</b>	<input type="checkbox"/> <b>Step 2: CONDITIONS</b> scrollbar to view all conditions	<input type="checkbox"/> <b>Step 3: Importance</b> move cursor on scale of 1-10
<div>Select Application</div> <div>Mobile Farm Machinery Railroad Industrial, Marine, or Food Heavy-duty on highway Passenger Car/Light Truck General Purpose Heavy Duty Off Road</div>		
<div>Which category of application</div> <div>Chains Wire rope Bearings Slides, guides, or ways Gears Castings, and Tubing pipe Flexible Couplings</div>		
<div>Which kind of bearing?</div> <div>Ball, roller, or needles Plain (journal) bearing</div>		
<div>Which bearing type?</div> <div>Spherical roller bearing Conveyor belt or roll bearing Needle bearing Roller bearing Ball bearing</div>		
<div>101</div> <div>Search the Web</div> <div>Product Data Sheet</div> <div><b>SELECTED GREASES</b> Step5: Highlight grease, click web links above, use Grease name in CBEST search</div> <div>Selected Greases</div>		
<div>Good Chassis Grease?</div> <div>Industrial water rust resistance?</div> <div>Salt water rust resistance?</div> <div>Water washout resistance?</div> <div>Continuous heavy loads?</div> <div>Shock load protection?</div> <div>Low Noise- OEM El.motor brgs</div>		

Step 1: APPLICATION

Select Application

Mobile Farm Machinery

Railroad

Industrial, Marine, or Food

Heavy-duty on highway

Passenger Car/Light Truck

General Purpose

Heavy Duty Off Road

Which category of application

Chains

Wire rope

Bearings

Slides, guides, or ways

Gears

Castings, and Tubing pipe/fit

Flexible Couplings

Which kind of bearing?

Ball, roller, or needles

Plain (journal) bearing

Which bearing type?

Spherical roller bearing

Conveyor belt or roll bearing

Needle bearing

Roller bearing

Ball bearing

Step 2: CONDITIONS

scrollbar to view all conditions

Select Application Method

Spray Gun

Manual

Single Point auto-lubricator

Central system

Grease gun

Aerosol spray

Other, like container pumps

Moly required?

5%

3%

Less than 3%

No

Heavy Loads required EP?

Yes

No

Food machinery application?

NSF H1-Incidental food contact

NSF H2-Non food contact

Approx. bearing diameter

Greater than 6 inches

3 to 6 inches

Less than 3 inches

Ball, roller, needle rpm

Greater than 5000 RPM

2000 TO 5000 RPM

500 TO 2000 RPM

Less than 500 RPM

Step 3: Importance

move cursor on scale of 1-10

Good Chassis Grease?

Industrial water rust resistance?

Salt water rust resistance?

Water washout resistance?

Continuous heavy loads?

Shock load protection?

Low Noise- OEM El. motor brgs

Step 4: Printable Report

GO

Enter Optional CustomerName for report

Search the Web

Product Data Sheet

SELECTED GREASES

Step5: Highlight grease, click web links above, use Grease name in CBEST search

Selected Greases

0 Rykotac Grease EP

0 Super Pemalube Grease

0 RPM Arctic Grease

0 SRI Grease NLGI 2

0 Ulti-Plex Synthetic Grease EP

0 Ulti-Plex HV Synthetic Grease EP

0 Moly Grease EP NLGI 1

0 Moly Grease EP NLGI 2

0 Dura-Lith Greases EP NLGI 0

0 Dura-Lith Greases EP NLGI 1

0 Dura-Lith Greases EP NLGI 2

0 Delo Grease EP NLGI 00

0 Delo Grease EP NLGI 1

0 Delo Grease EP NLGI 2

0 Ulti-Plex Grease EP NLGI 0

0 Ulti-Plex Grease EP NLGI 1

0 Ulti-Plex Grease EP NLGI 2

0 Ulti-Plex Grease EP NLGI 2

0 Ultra-Duty Grease EP NLGI 0

0 Ultra-Duty Grease EP NLGI 1

0 Ultra-Duty Grease EP NLGI 2

0 RPM Heavy Duty LC Grease EP NL

0 RPM Heavy Duty LC Grease EP NL

0 Moly MAX Grease EP NLGI 1

150



<input type="checkbox"/> Step 1: APPLICATION	<input type="checkbox"/> Step 2: CONDITIONS	<input type="checkbox"/> Step 3: Importance	<input type="checkbox"/> Step 4: Printable Report
<div>Select Application Mobile Farm Machinery Railroad Industrial Marine, or Food Heavy-duty on highway Passenger Car/Light Truck General Purpose Heavy Duty Off Road</div> <div>Which category of application Chains Wire rope Bearings Slides, guides, or ways Gears Castings, and Tubing pipeth Flexible Couplings</div> <div>Which kind of bearing? Ball roller, or needles Plain (journal) bearing</div> <div>Which bearing type? Spherical roller bearing Conveyor belt or roll bearing Needle bearing Roller bearing Ball bearing</div>	<div>Select Application Method Spray Gun Manual Single Point auto-lubricator Central system Grease gun Aerosol spray Other, like container pumps Moly required? 5% 3% Less than 3% No Heavy Loads required EP? Yes No Food machinery application? NSF H1-Incidental food co NSF H2-Non food contact Approx. bearing diameter Greater than 6 inches 3 to 6 inches Less than 3 inches Ball roller, needle rpm Greater than 5000 RPM 2000 TO 5000 RPM 500 TO 2000 RPM Less than 500 RPM</div>	<div>Good Chassis Grease? Industrial water rust resistance? Salt water rust resistance? Water washout resistance? Continuous heavy loads? Shock load protection? Low Noise- OEM El. motor brgs</div>	<div>Optional CustomerName for report Search the Web Product Data Sheet <b>SELECTED GREASES</b> Step5: Highlight grease, click web links above, use Grease name in CBEST search</div> <div>Selected Greases 0 Rykotac Grease EP 0 Super Pemalube Grease 0 RPM Arctic Grease 0 SRI Grease NLGI 2 0 Uliti-Plex Synthetic Grease EP 0 Uliti-Plex HV Synthetic Grease EP 0 Moly Grease EP NLGI 1 0 Moly Grease EP NLGI 2 0 Dura-Lith Greases EP NLGI 0 0 Dura-Lith Greases EP NLGI 1 0 Dura-Lith Greases EP NLGI 2 0 Delo Grease EP NLGI 00 0 Delo Grease EP NLGI 1 0 Delo Grease EP NLGI 2 0 Uliti-Plex Grease EP NLGI 0 0 Uliti-Plex Grease EP NLGI 1 0 Uliti-Plex Grease EP NLGI 2 0 Uliti-Plex Grease EP NLGI 2 0 RPM Heavy Duty LC Grease EP NL 0 RPM Heavy Duty LC Grease EP NL 0 Moly MAX Grease EP NLGI 1</div>

<input type="checkbox"/> Step 1: APPLICATION	<input type="checkbox"/> Step 2: CONDITIONS	<input type="checkbox"/> Step 3: Importance	<input type="checkbox"/> Step 4: Printable Report								
<div>Select Application</div> <div>Mobile Farm Machinery Railroad Industrial, Marine, or Food Heavy-duty on highway Passenger Car/Light Truck General Purpose Heavy Duty Off Road</div> <div>Which category of application</div> <div>Chains Wire rope Bearings Slides, guides, or ways Gears Castings, and Tubing pipe Flexible Couplings</div> <div>Which kind of bearing?</div> <div>Ball, roller, or needles Plain (journal) bearing</div> <div>Which bearing type?</div> <div>Spherical roller bearing Conveyor belt or roll bearing Needle bearing Roller bearing Ball bearing</div>	<div>Select Application Method</div> <div>Spray Gun Manual Single Point auto-lubricator Central system Grease gun Aerosol spray Other, like container pumps</div> <div>Moly required?</div> <div>5% 3% Less than 3% No</div> <div>Heavy Loads required EP?</div> <div>Yes No</div> <div>Food machinery application?</div> <div>NSF H1-Incidental food co NSF H2-Non food contact</div> <div>Approx. bearing diameter</div> <div>Greater than 6 inches 3 to 6 inches Less than 3 inches</div> <div>Ball, roller, needle rpm</div> <div>Greater than 5000 RPM 2000 TO 5000 RPM 500 TO 2000 RPM Less than 500 RPM</div>	<div>Good Chassis Grease?</div> <div>Industrial water rust resistance?</div> <div>Salt water rust resistance?</div> <div>Water washout resistance?</div> <div>Continuous heavy loads?</div> <div>Shock load protection?</div> <div>Low Noise- OEM El. motor brgs</div>	<div>Enter Optional CustomerName for report</div> <div>Search the Web Product Data Sheet</div> <div>SELECTED GREASES</div> <div>Step5: Highlight grease, click web links above, use Grease name in CBEST search</div> <div>Selected Greases</div> <table border="1"><tr><td>0</td><td>Moly Grease EP NLGI 1</td></tr><tr><td>0</td><td>Moly Grease EP NLGI 2</td></tr><tr><td>0</td><td>RPM Heavy Duty LC Grease EP NL</td></tr><tr><td>0</td><td>Moly MAX Grease EP NLGI 1</td></tr></table>	0	Moly Grease EP NLGI 1	0	Moly Grease EP NLGI 2	0	RPM Heavy Duty LC Grease EP NL	0	Moly MAX Grease EP NLGI 1
0	Moly Grease EP NLGI 1										
0	Moly Grease EP NLGI 2										
0	RPM Heavy Duty LC Grease EP NL										
0	Moly MAX Grease EP NLGI 1										

150

<input type="checkbox"/> <b>Step 1: APPLICATION</b> Select Application <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">           Mobile Farm Machinery            Railroad            Industrial Marine or Food            Heavy-duty on highway            Passenger Car/Light Truck            General Purpose  <b>Heavy Duty Off Road</b> </div>	<input type="checkbox"/> <b>Step 2: CONDITIONS</b> scrollbar to view all conditions Select Application Method <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">           Spray Gun            Manual            Single Point auto-lubricator            Central system            Grease gun            Aerosol spray            Other, like container pumps         </div>	<input type="checkbox"/> <b>Step 3: Importance</b> move cursor on scale of 1-10  Good Chassis Grease? _____ Industrial water rust resistance? _____ Salt water rust resistance? _____ Water washout resistance? _____ Continuous heavy loads? _____ Shock load protection? _____ Low Noise- OEM El.motor brgs _____						
<input type="checkbox"/> <b>Step 4: Printable Report</b> [GO]	<input type="checkbox"/> <b>Optional CustomerName for report</b>  <div style="text-align: center;">             Search the Web  <a href="#">Product Data Sheet</a> </div> <p><b>SELECTED GREASES</b></p> <p><b>Step5:</b> Highlight grease, click web links above, use Grease name in CBEST search</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <b>Selected Greases</b>  <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>0</td><td>Moly Grease EP NLGI 1</td></tr> <tr><td>0</td><td>Moly Grease EP NLGI 2</td></tr> <tr><td>0</td><td>Moly MAX Grease EP NLGI 1</td></tr> </table> </div>		0	Moly Grease EP NLGI 1	0	Moly Grease EP NLGI 2	0	Moly MAX Grease EP NLGI 1
0	Moly Grease EP NLGI 1							
0	Moly Grease EP NLGI 2							
0	Moly MAX Grease EP NLGI 1							

Step 1: APPLICATION

Select Application

Mobile Farm Machinery  
Railroad  
Industrial, Marine, or Food  
Heavy-duty on highway  
Passenger Car/Light Truck  
General Purpose  
Heavy Duty Off Road

Which category of application

Chains  
Wire rope  
Bearings  
Slides, guides, or ways  
Gears  
Castings, and Tubing pipe  
Flexible Couplings

Which kind of bearing?

Ball, roller, or needles  
Plain (journal) bearing

Which bearing type?

Spherical roller bearing  
Conveyor belt or roll bearing  
Needle bearing  
Roller bearing  
Ball bearing

Step 2: CONDITIONS

scrollbar to view all conditions

Select Application Method

Spray Gun  
Manual  
Single Point auto-lubricator  
Central system  
Grease gun  
Aerosol spray  
Other, like container pumps

Moly required?

5%  
3%  
Less than 3%  
No

Heavy Loads required EP?

Yes  
No

Food machinery application?

NSF H1-Incidental food co  
NSF H2-Non food contact

Approx. bearing diameter

Greater than 6 inches  
3 to 6 inches  
Less than 3 inches

Ball, roller, needle rpm

Greater than 5000 RPM  
2000 TO 5000 RPM  
500 TO 2000 RPM  
Less than 500 RPM

Step 3: Importance

move cursor on scale of 1-10

Good Chassis Grease? 142

Industrial water rust resistance? 144

Salt water rust resistance? 146

Water washout resistance? 148

Continuous heavy loads?

Shock load protection?

Low Noise- OEM El. motor brgs

Step 4: Printable Report

GO

Enter Optional CustomerName for report

Search the Web  
Product Data Sheet

SELECTED GREASES

Step5: Highlight grease, click web links above, use Grease name in CBEST search

Selected Greases

99 Moly Grease EP NLGI 1  
99 Moly Grease EP NLGI 2  
101 Moly MAX Grease EP NLGI 1

150

154

128

☐ Step 1: APPLICATION

Select Application  
Mobile Farm Machinery  
Railroad  
Industrial, Marine, or Food  
Heavy-duty on highway  
Passenger Car/Light Truck  
General Purpose  
Heavy Duty Off Road

Which category of application  
Chains  
Wire rope  
Bearings  
Slides, guides, or ways  
Gears  
Castings, and Tubing pipe etc.  
Flexible Couplings

Which kind of bearing?  
Ball, roller, or needles  
Plain (journal) bearing

Which bearing type?  
Ball bearing  
Spherical roller bearing  
Conveyor belt or roll bearing  
Needle bearing  
Roller bearing

☐ Step 2: CONDITIONS  
scrollbar to view all conditions

Select Low Temp operating  
Spray Gun  
Manual  
Single Point auto-lubricator  
Central system  
Grease gun  
Aerosol spray  
Other, like container pumps

Select the highest operating  
Above 350F  
301 to 350F  
261 to 300F  
213 to 260F  
175 to 212F

Select Application Method  
Spray Gun  
Manual  
Single Point auto-lubricator  
Central system  
Grease gun  
Aerosol spray  
Other, like container pumps  
Moly required?  
5%  
3%  
Less than 3%  
No

Heavy Loads required EP?  
Yes  
No  
Food application  
YNSF H1 Certification: Incidental  
YNSF H2 Certification: Non food

☐ Step 3: Importance  
move cursor on scale of 1-10

Good Chassis Grease? \_\_\_\_\_

Industrial water rust resistance? \_\_\_\_\_

Salt water rust resistance? \_\_\_\_\_

Water washout resistance? \_\_\_\_\_

Continuous heavy loads? \_\_\_\_\_

Shock load protection? \_\_\_\_\_

Grease noise in bearings? \_\_\_\_\_

☐ Step 4: Printable Report

John Doe Product end user

Search the Web  
Product Data Sheet

**SELECTED GREASES**

Step 5: Highlight grease, click web links above, use Grease name in CBEST search

Selected Greases	
152	Rykotac Grease EP
144	Super Pemalube Grease
173	RPM Arctic Grease
190	SRI Grease NLGI 2
190	SRI Grease OEM
175	Ulti-Plex Synthetic Grease EP
157	Ulti-Plex Grease EP NLGI 0
173	Ulti-Plex Grease EP NLGI 1
163	Black Pearl Grease EP NLGI 1
102	FM Greases EP NLGI 0
126	FM Greases EP NLGI 1
129	Rykon Premium Grease EP